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=> s ( solid phase or surface) and carboxyl
L1      159203 (SOLID PHASE OR SURFACE) AND CARBOXYL

=> s l1 and 3(5a) overhang
L2        1037 L1 AND 3(5A) OVERHANG

=> s l2 and ligase
L3         562 L2 AND LIGASE

=> s l3 and surface (7a) carboxyl
L4          22 L3 AND SURFACE (7A) CARBOXYL

=> dup rem l4
PROCESSING COMPLETED FOR L4
L5           22 DUP REM L4 (0 DUPLICATES REMOVED)

=> d l5 bib abs 1-22

L5   ANSWER 1 OF 22  USPATFULL on STN
AN     2009:52944  USPATFULL
TI     Methods of amplifying and sequencing nucleic acids
IN     Leamon, John H., Guilford, CT, UNITED STATES
       Lohman, Kenton L., Guilford, CT, UNITED STATES
       Rothberg, Jonathan M., Guilford, CT, UNITED STATES
       Weiner, Michael P., Guilford, CT, UNITED STATES
PI     US 20090048124      A1  20090219
AI     US 2007-788838      A1  20070420 (11)
RLI    Division of Ser. No. US 2004-767779, filed on 22 Sep 2004, Pat. No. US
       7323305
PRAI   US 2003-443471P     20030129 (60)
       US 2003-465071P     20030423 (60)
       US 2003-476313P     20030606 (60)
       US 2003-476504P     20030606 (60)
       US 2003-476592P     20030606 (60)
       US 2003-476602P     20030606 (60)
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US 2003-497985P 20030825 (60)
DT Utility
FS APPLICATION
LREP MINTZ LEVIN COHN FERRIS GLOVSKY & POPEO, ONE FINANCIAL CENTER, BOSTON, MA, 02111, US
CLMN Number of Claims: 84
ECL Exemplary Claim: 1
DRWN 49 Drawing Page(s)
LN.CNT 6791
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB An apparatus and method for performing rapid DNA sequencing, such as genomic sequencing, is provided herein. The method includes the steps of preparing a sample DNA for genomic sequencing, amplifying the prepared DNA in a representative manner, and performing multiple sequencing reaction on the amplified DNA with only one primer hybridization step.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 2 OF 22 USPATFULL on STN
AN 2006:340798 USPATFULL
TI Methods of enzymatic discrimination enhancement and surface bound double-stranded DNA
IN Lockhart, David J., Mountain View, CA, UNITED STATES
Chee, Mark S., Palo Alto, CA, UNITED STATES
Vetter, Dirk, Weimar-Gaberndorf, GERMANY, FEDERAL REPUBLIC OF
Digglemann, Martin, Niederdorf, SWITZERLAND
PA Affymetrix, Inc., Santa Clara, CA, UNITED STATES (U.S. corporation)
PI US 20060292579 A1 20061228
AI US 2005-176012 A1 20050705 (11)
RLI Continuation of Ser. No. US 1995-533582, filed on 18 Oct 1995, GRANTED, Pat. No. US 6974666 Continuation-in-part of Ser. No. US 1994-327522, filed on 21 Oct 1994, ABANDONED Continuation-in-part of Ser. No. US 1994-327687, filed on 24 Oct 1994, GRANTED, Pat. No. US 5556752
DT Utility
FS APPLICATION
LREP TOWNSEND AND TOWNSEND AND CREW LLP, TWO EMBARCADERO CENTER, 8TH FLOOR, SAN FRANCISCO, CA, 94111-3834, US
CLMN Number of Claims: 23
ECL Exemplary Claim: 1-16
DRWN 16 Drawing Page(s)
LN.CNT 3909
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Methods for discriminating between fully complementary hybrids and those that differ by one or more base pairs and libraries of unimolecular, double-stranded oligonucleotides on a solid support. In one embodiment, the present invention provides methods of using nuclease treatment to improve the quality of hybridization signals on high density oligonucleotide arrays. In another embodiment, the present invention provides methods of using ligation reactions to improve the quality of hybridization signals on high density oligonucleotide arrays. In yet another embodiment, the present invention provides libraries of unimolecular or intermolecular, double-stranded oligonucleotides on a solid support. These libraries are useful in pharmaceutical discovery for the screening of numerous biological samples for specific interactions between the double-stranded oligonucleotides, and peptides, proteins, drugs and RNA. In a related aspect, the present invention provides libraries of conformationally restricted probes on a solid support. The probes are restricted in their movement and flexibility using double-stranded oligonucleotides as scaffolding. The probes are also useful in various screening procedures associated with drug discovery and diagnosis. The present invention further provides methods

for the preparation and screening of the above libraries.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 3 OF 22 USPATFULL on STN
AN 2006:240519 USPATFULL
TI Molecular detection systems utilizing reiterative oligonucleotide synthesis
IN Hanna, Michelle M., 714 East Van Buren Street, Suite 100, Phoenix, AZ, UNITED STATES 85006
PI US 20060204964 A1 20060914
AI US 2004-551775 A1 20040429 (10)
WO 2004-US13031 20040429
20051003 PCT 371 date
RLI Continuation-in-part of Ser. No. US 2003-425037, filed on 29 Apr 2003, PENDING
DT Utility
FS APPLICATION
LREP STERNE, KESSLER, GOLDSTEIN & FOX PLLC, 1100 NEW YORK AVENUE, N.W., WASHINGTON, DC, 20005, US
CLMN Number of Claims: 22
ECL Exemplary Claim: 1
DRWN 45 Drawing Page(s)
LN.CNT 6256
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The present invention provides methods for detecting the presence of a target molecule by the use of nucleotide analogs containing moieties that enable detection. Such analogs may be incorporated into nucleic acids. In one embodiment, nucleotide analogs are used in a process generating multiple detectable oligonucleotides through reiterative enzymatic oligonucleotide synthesis events on a defined polynucleotide sequence. The methods generally comprise using a nucleoside, a mononucleotide, an oligonucleotide, or a polynucleotide, or analog thereof, to initiate synthesis of an oligonucleotide product that is substantially complementary to a target site on the defined polynucleotide sequence; optionally using nucleotides or nucleotide analogs as oligonucleotide chain elongators or chain terminators to terminate the polymerization reaction; and detecting multiple oligonucleotide products that have been synthesized by the polymerase.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 4 OF 22 USPATFULL on STN
AN 2006:131093 USPATFULL
TI Coded nucleic acid carriers
IN Toohey, Brendan James, Springbank Victoria, AUSTRALIA
Poetter, Karl Frederick, Northcote Victoria, AUSTRALIA
PI US 20060110733 A1 20060525
AI US 2003-525356 A1 20030822 (10)
WO 2003-AU1077 20030822
20051202 PCT 371 date
PRAI AU 2002-950953 20020823
DT Utility
FS APPLICATION
LREP SCULLY, SCOTT, MURPHY & PRESSER, 400 GARDEN CITY PLAZA, SUITE 300, GARDEN CITY, NY, 11530, US
CLMN Number of Claims: 30
ECL Exemplary Claim: 1
DRWN 5 Drawing Page(s)
LN.CNT 1280
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention relates generally to coded solid or semi-solid nucleic acid carriers for use in multiplexing solid phase nucleic acid-based reactions. The use of coded carriers facilities multiplexing due to the ability to deconvolute multiple nucleic acid-based events and to correlate those to particular experiments. The present invention further provides a method for identifying a nucleic acid molecule having a defined characteristic within a population of two or more different nucleic acid molecules using coded nucleic acid carriers. Conversely, the nucleic acid can be used as the code for a particular peptide, or other chemical, bound specifically to a microsphere with a specific oligonucleotide sequence. Alternatively, the method of the present invention permits screening for molecules which interact with target nucleic acid, or other, molecules. The method and the coded carriers of the present invention enable high throughput screening of nucleic acid, or other, molecules. The method may also be automated and/or controlled by computer software.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 5 OF 22 USPATFULL on STN
AN 2006:74876 USPATFULL
TI Nucleic acid anchoring system comprising covalent linkage of an oligonucleotide to a solid support
IN Poetter, Karl Frederick, Northcote, AUSTRALIA
Toohey, Brendan James, Clifton Hill, AUSTRALIA
PA The Walter and Eliza Hall Institute of Medical Research, Parkville, AUSTRALIA, 3052 (non-U.S. corporation)
PI US 20060063925 A1 20060323
AI US 2003-517003 A1 20030604 (10)
WO 2003-AU696 20030604
20050819 PCT 371 date
PRAI AU 2002-2764 20020604
DT Utility
FS APPLICATION
LREP SEED INTELLECTUAL PROPERTY LAW GROUP PLLC, 701 FIFTH AVE, SUITE 6300, SEATTLE, WA, 98104-7092, US
CLMN Number of Claims: 16
ECL Exemplary Claim: 1
DRWN 10 Drawing Page(s)
LN.CNT 1060
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The anchoring system generally comprises a solid support and a chemical linking moiety useful for ether formation with another chemical moiety on a nucleic acid molecule. The present invention further contemplates methods for anchoring a nucleic acid molecule to a solid support via a covalent linkage. The anchoring system of the present invention is useful inter alia in construction of nucleic acid arrays, to purify nucleic acid molecules and to anchor nucleic acid molecules so that they can be used as templates for in vitro transcription and/or translation experiments and to participate in amplification reactions. The present invention is particularly adaptable for use with microspheres and the preparation of microsphere suspension arrays and optical fiber arrays. The anchoring system permits the generation of an anchored oligonucleotide for use as a universal nucleic acid conjugation substrate for any nucleic acid molecule or population of nucleic acid molecules. The present invention further provides a kit useful for anchoring nucleic acid molecules or comprising nucleic acid molecules already anchored to a solid support.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 6 OF 22 USPATFULL on STN
AN 2006:46826 USPATFULL
TI Methods of amplifying and sequencing nucleic acids
IN Leamon, John H., Guilford, CT, UNITED STATES
Lohman, Kenton L., Guilford, CT, UNITED STATES
Rothberg, Jonathan M., Guilford, CT, UNITED STATES
Weiner, Michael P., Guilford, CT, UNITED STATES
PI US 20060040297 A1 20060223
AI US 2005-195254 A1 20050801 (11)
RLI Continuation-in-part of Ser. No. US 2004-767779, filed on 22 Sep 2004, PENDING
PRAI US 2003-443471P 20030129 (60)
US 2003-465071P 20030423 (60)
US 2003-476313P 20030606 (60)
US 2003-476504P 20030606 (60)
US 2003-476592P 20030606 (60)
US 2003-476602P 20030606 (60)
US 2003-497985P 20030825 (60)
DT Utility
FS APPLICATION
LREP MINTZ LEVIN COHN FERRIS GLOVSKY & POPEO, 666 THIRD AVENUE, NEW YORK, NY, 10017, US
CLMN Number of Claims: 5
ECL Exemplary Claim: 1
DRWN 65 Drawing Page(s)
LN.CNT 8647
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB An apparatus and method for performing rapid DNA sequencing, such as genomic sequencing, is provided herein. The method includes the steps of preparing a sample DNA for genomic sequencing, amplifying the prepared DNA in a representative manner, and performing multiple sequencing reaction on the amplified DNA with only one primer hybridization step.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 7 OF 22 USPATFULL on STN
AN 2005:305778 USPATFULL
TI Methods for identifying target nucleic acid molecules
IN Barany, Francis, New York, NY, UNITED STATES
Turner, Daniel, New York, NY, UNITED STATES
Pingle, Maneesh, New York, NY, UNITED STATES
Pincas, Hanna, New York, NY, UNITED STATES
PI US 20050266417 A1 20051201
AI US 2004-939294 A1 20040910 (10)
PRAI US 2003-502731P 20030912 (60)
DT Utility
FS APPLICATION
LREP Michael L. Goldman, Nixon Peabody LLP, Clinton Square, P.O. Box 31051, Rochester, NY, 14603-1051, US
CLMN Number of Claims: 215
ECL Exemplary Claim: 1
DRWN 772 Drawing Page(s)
LN.CNT 8356
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The present invention relates to methods for identifying target nucleic acid molecules differing by one or more single-base changes, insertions, deletions, or translocations; and identifying one or more target mRNA molecules differing by one or more splice site variations in a plurality of mRNA molecules. Also disclosed is a method of generating a linearly amplified representation of a whole genome. Other aspects of the present invention relate to labeled detection oligonucleotide probes and

translational oligonucleotide probes as well as to methods of designing such probes.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 8 OF 22 USPATFULL on STN
AN 2005:151261 USPATFULL
TI Methods of amplifying and sequencing nucleic acids
IN Leamon, John H., Guilford, CT, UNITED STATES
Lohman, Kenton L., Guilford, CT, UNITED STATES
Rothberg, Jonathan M., Guilford, CT, UNITED STATES
Weiner, Michael P., Guilford, CT, UNITED STATES
PI US 20050130173 A1 20050616
US 7323305 B2 20080129
AI US 2004-767779 A1 20040922 (10)
PRAI US 2003-443471P 20030129 (60)
US 2003-465071P 20030423 (60)
US 2003-476313P 20030606 (60)
US 2003-476504P 20030606 (60)
US 2003-476592P 20030606 (60)
US 2003-476602P 20030606 (60)
US 2003-497985P 20030825 (60)
DT Utility
FS APPLICATION
LREP MINTZ LEVIN COHN FERRIS GLOVSKY & POPEO, 666 THIRD AVENUE, NEW YORK, NY, 10017, US
CLMN Number of Claims: 84
ECL Exemplary Claim: 1
DRWN 49 Drawing Page(s)
LN.CNT 6778
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB An apparatus and method for performing rapid DNA sequencing, such as genomic sequencing, is provided herein. The method includes the steps of preparing a sample DNA for genomic sequencing, amplifying the prepared DNA in a representative manner, and performing multiple sequencing reaction on the amplified DNA with only one primer hybridization step.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 9 OF 22 USPATFULL on STN
AN 2005:75117 USPATFULL
TI Molecular detection systems utilizing reiterative oligonucleotide synthesis
IN Hanna, Michelle M, Phoeniz, AZ, UNITED STATES
PI US 20050064414 A1 20050324
US 7470511 B2 20081230
AI US 2004-488971 A1 20041018 (10)
WO 2002-US34419 20021029
PRAI US 2001-9984664 20011030
DT Utility
FS APPLICATION
LREP STERNE, KESSLER, GOLDSTEIN & FOX PLLC, 1100 NEW YORK AVENUE, N.W., WASHINGTON, DC, 20005
CLMN Number of Claims: 12
ECL Exemplary Claim: CLM-01-25
DRWN 39 Drawing Page(s)
LN.CNT 4098
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The present invention provides methods for detecting the presence of a target molecule by generating multiple detectable oligonucleotides through reiterative enzymatic oligonucleotide synthesis events on a

defined polynucleotide sequence. The methods generally comprise using a nucleoside, a mononucleotide, and oligonucleotide, or a polynucleotide, or analog thereof, to initiate synthesis of an oligonucleotide product that is substantially complementary to a target site on the defined polynucleotide sequence; optionally using nucleotides or nucleotide anologs as oligonucleotide chain elongators; using a chain terminator to terminate the polymerization reaction; and detecting multiple oligonucleotide products that have been synthesized by the polymerase. In one aspect, the invention provides a method for detecting a target protein, DNA or RNA by generating multiple detectable RNA oligoribonucleotides by abortive transcription.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 10 OF 22 USPATFULL on STN
AN 2005:68877 USPATFULL
TI Structural motifs and oligomeric compounds and their use in gene modulation
IN Ecker, David J., Encinitas, CA, UNITED STATES
Boswell, Herb, San Marcos, CA, UNITED STATES
PI US 20050059016 A1 20050317
AI US 2003-660059 A1 20030911 (10)
DT Utility
FS APPLICATION
LREP WOODCOCK WASHBURN LLP, ONE LIBERTY PLACE - 46TH FLOOR, PHILADELPHIA, PA, 19103
CLMN Number of Claims: 83
ECL Exemplary Claim: 1
DRWN No Drawings
LN.CNT 4828
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Oligomer compositions comprising first and second oligomers are provided wherein at least a portion of the first oligomer is capable of hybridizing with at least a portion of the second oligomer, at least a portion of the first oligomer is complementary to and capble of hybridizing to a selected target nucleic acid, and at least one of the first or second oligomers has a non-linear secondary structure or is part of a multiple oligomer assembly. Oligonucleotide/protein compositions are also provided comprising an oligomer complementary to and capable of hybridizing to a selected target nucleic acid and at least one protein comprising at least a portion of an RNA-induced silencing complex (RISC), wherein the oligomer has has a non-linear secondary structure or is part of a multiple oligomer assembly.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 11 OF 22 USPATFULL on STN
AN 2005:30719 USPATFULL
TI Molecular detection systems utilizing reiterative oligonucleotide synthesis
IN Hanna, Michelle M., Phoenix, AZ, UNITED STATES
PA Ribomed Biotechnologies, Inc. (U.S. corporation)
PI US 20050026150 A1 20050203
US 7226738 B2 20070605
AI US 2003-607136 A1 20030627 (10)
RLI Division of Ser. No. US 2001-984664, filed on 30 Oct 2001, PENDING
DT Utility
FS APPLICATION
LREP STERNE, KESSLER, GOLDSTEIN & FOX PLLC, 1100 NEW YORK AVENUE, N.W., WASHINGTON, DC, 20005
CLMN Number of Claims: 135

ECL Exemplary Claim: 1
DRWN 31 Drawing Page(s)
LN.CNT 4379
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The present invention provides methods for detecting the presence of a target molecule by generating multiple detectable oligonucleotides through reiterative enzymatic oligonucleotide synthesis events on a defined polynucleotide sequence. The methods generally comprise using a nucleoside, a mononucleotide, an oligonucleotide, or a polynucleotide, or analog thereof, to initiate synthesis of an oligonucleotide product that is substantially complementary to a target site on the defined polynucleotide sequence; optionally using nucleotides or nucleotide analogs as oligonucleotide chain elongators; using a chain terminator to terminate the polymerization reaction; and detecting multiple oligonucleotide products that have been synthesized by the polymerase. In one aspect, the invention provides a method for detecting a target protein, DNA or RNA by generating multiple detectable RNA oligoribonucleotides by abortive transcription.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 12 OF 22 USPATFULL on STN
AN 2005:314715 USPATFULL
TI Methods of enzymatic discrimination enhancement and surface -bound double-stranded DNA
IN Lockhart, David J., Mountain View, CA, UNITED STATES
Chee, Mark S., Palo Alto, CA, UNITED STATES
Vetter, Dirk, Weimar-Gabendorf, GERMANY, FEDERAL REPUBLIC OF
Digglemann, Martin, Niederdorf, SWITZERLAND
PA Appymetric, Inc., Santa Clara, CA, UNITED STATES (U.S. corporation)
PI US 6974666 B1 20051213
AI US 1995-533582 19951018 (8)
RLI Continuation-in-part of Ser. No. US 1994-327687, filed on 24 Oct 1994, Pat. No. US 5556752 Continuation-in-part of Ser. No. US 1994-327522, filed on 21 Oct 1994, ABANDONED
DT Utility
FS GRANTED
EXNAM Primary Examiner: Fredman, Jeffrey
LREP Townsend and Townsend and Crew LLP
CLMN Number of Claims: 26
ECL Exemplary Claim: 1
DRWN 16 Drawing Figure(s); 16 Drawing Page(s)
LN.CNT 3951
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Methods for discriminating between fully complementary hybrids and those that differ by one or more base pairs and libraries of unimolecular, double-stranded oligonucleotides on a solid support. In one embodiment, the present invention provides methods of using nuclease treatment to improve the quality of hybridization signals on high density oligonucleotide arrays. In another embodiment, the present invention provides methods of using ligation reactions to improve the quality of hybridization signals on high density oligonucleotide arrays. In yet another embodiment, the present invention provides libraries of unimolecular or intermolecular, double-stranded oligonucleotides on a solid support. These libraries are useful in pharmaceutical discovery for the screening of numerous biological samples for specific interactions between the double-stranded oligonucleotides, and peptides, proteins, drugs and RNA. In a related aspect, the present invention provides libraries of conformationally restricted probes on a solid support. The probes are restricted in their movement and flexibility using double-stranded oligonucleotides as scaffolding. The probes are

also useful in various screening procedures associated with drug discovery and diagnosis. The present invention further provides methods for the preparation and screening of the above libraries.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 13 OF 22 USPATFULL on STN
AN 2004:299129 USPATFULL
TI Molecular detection systems utilizing reiterative oligonucleotide synthesis
IN Hanna, Michelle M., Phoenix, AZ, UNITED STATES
PA Ribomed Biotechnologies, Inc. (U.S. corporation)
PI US 20040234996 A1 20041125
US 7468261 B2 20081223
AI US 2003-602045 A1 20030624 (10)
RLI Division of Ser. No. US 2001-984664, filed on 30 Oct 2001, PENDING
DT Utility
FS APPLICATION
LREP STERNE, KESSLER, GOLDSTEIN & FOX PLLC, 1100 NEW YORK AVENUE, N.W., WASHINGTON, DC, 20005
CLMN Number of Claims: 135
ECL Exemplary Claim: 1
DRWN 30 Drawing Page(s)
LN.CNT 4381
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The present invention provides methods for detecting the presence of a target molecule by generating multiple detectable oligonucleotides through reiterative enzymatic oligonucleotide synthesis events on a defined polynucleotide sequence. The methods generally comprise using a nucleoside, a mononucleotide, an oligonucleotide, or a polynucleotide, or analog thereof, to initiate synthesis of an oligonucleotide product that is substantially complementary to a target site on the defined polynucleotide sequence; optionally using nucleotides or nucleotide analogs as oligonucleotide chain elongators; using a chain terminator to terminate the polymerization reaction; and detecting multiple oligonucleotide products that have been synthesized by the polymerase. In one aspect, the invention provides a method for detecting a target protein, DNA or RNA by generating multiple detectable RNA oligoribonucleotides by abortive transcription.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 14 OF 22 USPATFULL on STN
AN 2004:227338 USPATFULL
TI Molecular detection systems utilizing reiterative oligonucleotide synthesis
IN Hanna, Michelle M., Phoenix, AZ, UNITED STATES
PA Designer Genes, Inc. (U.S. corporation)
PI US 20040175724 A1 20040909
AI US 2003-686713 A1 20031017 (10)
RLI Continuation of Ser. No. US 2001-984664, filed on 30 Oct 2001, PENDING
DT Utility
FS APPLICATION
LREP STERNE, KESSLER, GOLDSTEIN & FOX PLLC, 1100 NEW YORK AVENUE, N.W., WASHINGTON, DC, 20005
CLMN Number of Claims: 135
ECL Exemplary Claim: 1
DRWN 31 Drawing Page(s)
LN.CNT 4380
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The present invention provides methods for detecting the presence of a

target molecule by generating multiple detectable oligonucleotides through reiterative enzymatic oligonucleotide synthesis events on a defined polynucleotide sequence. The methods generally comprise using a nucleoside, a mononucleotide, an oligonucleotide, or a polynucleotide, or analog thereof, to initiate synthesis of an oligonucleotide product that is substantially complementary to a target site on the defined polynucleotide sequence; optionally using nucleotides or nucleotide analogs as oligonucleotide chain elongators; using a chain terminator to terminate the polymerization reaction; and detecting multiple oligonucleotide products that have been synthesized by the polymerase. In one aspect, the invention provides a method for detecting a target protein, DNA or RNA by generating multiple detectable RNA oligoribonucleotides by abortive transcription.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 15 OF 22 USPATFULL on STN
AN 2004:203367 USPATFULL
TI Abortive promoter cassettes
IN Hanna, Michelle M., Phoenix, AZ, UNITED STATES
PA Ribomed Biotechnologies, Inc., Phoenix, AZ, UNITED STATES, 85040 (U.S. corporation)
PI US 20040157257 A1 20040812
US 7473775 B2 20090106
AI US 2004-790766 A1 20040303 (10)
RLI Continuation of Ser. No. US 2001-984664, filed on 30 Oct 2001, PENDING
DT Utility
FS APPLICATION
LREP STERNE, KESSLER, GOLDSTEIN & FOX PLLC, 1100 NEW YORK AVENUE, N.W., WASHINGTON, DC, 20005
CLMN Number of Claims: 135
ECL Exemplary Claim: 1
DRWN 32 Drawing Page(s)
LN.CNT 4380
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The present invention provides methods for detecting the presence of a target molecule by generating multiple detectable oligonucleotides through reiterative enzymatic oligonucleotide synthesis events on a defined polynucleotide sequence. The methods generally comprise using a nucleoside, a mononucleotide, an oligonucleotide, or a polynucleotide, or analog thereof, to initiate synthesis of an oligonucleotide product that is substantially complementary to a target site on the defined polynucleotide sequence; optionally using nucleotides or nucleotide analogs as oligonucleotide chain elongators; using a chain terminator to terminate the polymerization reaction; and detecting multiple oligonucleotide products that have been synthesized by the polymerase. In one aspect, the invention provides a method for detecting a target protein, DNA or RNA by generating multiple detectable RNA oligoribonucleotides by abortive transcription.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 16 OF 22 USPATFULL on STN
AN 2004:190132 USPATFULL
TI Structural motifs and oligomeric compounds and their use in gene modulation
IN Ecker, David J., Encinitas, CA, UNITED STATES
Boswell, Herb, San Marcos, CA, UNITED STATES
Crooke, Stanley T., Carlsbad, CA, UNITED STATES
PI US 20040146902 A1 20040729
AI US 2003-700939 A1 20031104 (10)

RLI Continuation-in-part of Ser. No. US 2003-660059, filed on 11 Sep 2003, PENDING Continuation-in-part of Ser. No. US 2002-78949, filed on 20 Feb 2002, PENDING Continuation of Ser. No. US 2000-479783, filed on 7 Jan 2000, PENDING Division of Ser. No. US 1997-870608, filed on 6 Jun 1997, GRANTED, Pat. No. US 6107094 Continuation-in-part of Ser. No. US 1996-659440, filed on 6 Jun 1996, GRANTED, Pat. No. US 5898031
PRAI US 2002-423760P 20021105 (60)
DT Utility
FS APPLICATION
LREP WOODCOCK WASHBURN LLP, ONE LIBERTY PLACE - 46TH FLOOR, PHILADELPHIA, PA, 19103
CLMN Number of Claims: 83
ECL Exemplary Claim: 1
DRWN No Drawings
LN.CNT 4838
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Oligomer compositions comprising first and second oligomers are provided wherein at least a portion of the first oligomer is capable of hybridizing with at least a portion of the second oligomer, at least a portion of the first oligomer is complementary to and capble of hybridizing to a selected target nucleic acid, and at least one of the first or second oligomers has a non-linear secondary structure or is part of a multiple oligomer assembly. Oligonucleotide/protein compositions are also provided comprising an oligomer complementary to and capable of hybridizing to a selected target nucleic acid and at least one protein comprising at least a portion of an RNA-induced silencing complex (RISC), wherein the oligomer has has a non-linear secondary structure or is part of a multiple oligomer assembly.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 17 OF 22 USPATFULL on STN
AN 2004:178295 USPATFULL
TI Molecular detection systems utilizing reiterative oligonucleotide synthesis
IN Hanna, Michelle M., Phoenix, AZ, UNITED STATES
PA Designer Genes, Inc. (U.S. corporation)
PI US 20040137461 A1 20040715
US 7541165 B2 20090602
AI US 2003-600581 A1 20030623 (10)
RLI Division of Ser. No. US 2001-984664, filed on 30 Oct 2001, PENDING
DT Utility
FS APPLICATION
LREP STERNE, KESSLER, GOLDSTEIN & FOX PLLC, 1100 NEW YORK AVENUE, N.W., WASHINGTON, DC, 20005
CLMN Number of Claims: 135
ECL Exemplary Claim: 1
DRWN 31 Drawing Page(s)
LN.CNT 4377
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The present invention provides methods for detecting the presence of a target molecule by generating multiple detectable oligonucleotides through reiterative enzymatic oligonucleotide synthesis events on a defined polynucleotide sequence. The methods generally comprise using a nucleoside, a mononucleotide, an oligonucleotide, or a polynucleotide, or analog thereof, to initiate synthesis of an oligonucleotide product that is substantially complementary to a target site on the defined polynucleotide sequence; optionally using nucleotides or nucleotide analogs as oligonucleotide chain elongators; using a chain terminator to terminate the polymerization reaction; and detecting multiple oligonucleotide products that have been synthesized by the polymerase.

In one aspect, the invention provides a method for detecting a target protein, DNA or RNA by generating multiple detectable RNA oligoribonucleotides by abortive transcription.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 18 OF 22 USPATFULL on STN
AN 2004:70934 USPATFULL
TI Molecular detection systems utilizing reiterative oligonucleotide synthesis
IN Hanna, Michelle M., Phoenix, AZ, UNITED STATES
PI US 20040054162 A1 20040318
AI US 2003-425037 A1 20030429 (10)
RLI Continuation-in-part of Ser. No. WO 2002-US34419, filed on 29 Oct 2002, PENDING Continuation-in-part of Ser. No. US 2001-984664, filed on 30 Oct 2001, PENDING
DT Utility
FS APPLICATION
LREP STERNE, KESSLER, GOLDSTEIN & FOX PLLC, 1100 NEW YORK AVENUE, N.W., WASHINGTON, DC, 20005
CLMN Number of Claims: 27
ECL Exemplary Claim: 1
DRWN 44 Drawing Page(s)
LN.CNT 6279
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The present invention provides methods for detecting the presence of a target molecule by the use of nucleotide analogs containing moieties that enable detection. Such analogs may be incorporated into nucleic acids. In one embodiment, nucleotide analogs are used in a process generating multiple detectable oligonucleotides through reiterative enzymatic oligonucleotide synthesis events on a defined polynucleotide sequence. The methods generally comprise using a nucleoside, a mononucleotide, an oligonucleotide, or a polynucleotide, or analog thereof, to initiate synthesis of an oligonucleotide product that is substantially complementary to a target site on the defined polynucleotide sequence; optionally using nucleotides or nucleotide analogs as oligonucleotide chain elongators or chain terminators to terminate the polymerization reaction; and detecting multiple oligonucleotide products that have been synthesized by the polymerase.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 19 OF 22 WPIDS COPYRIGHT 2009 THOMSON REUTERS on STN
AN 2004-043131 [04] WPIDS
DNC C2004-017860 [04]
TI Universal nucleic acid anchoring system having solid support and chemical moiety for linking with other chemical moiety on nucleic acid, useful for generation of microarrays, suspension arrays and optical fiber arrays
DC B04; D16
IN POETTER K F; TOOHEY B J
PA (HALL-N) HALL INST MEDICAL RES WALTER & ELIZA
CYC 101
PIA WO 2003102228 A1 20031211 (200404)* EN 51[8]
AU 2003229125 A1 20031219 (200449) EN
AU 2003229125 B2 20050317 (200523) EN
US 20060063925 A1 20060323 (200622) EN
NZ 536909 A 20060630 (200664) EN
ADT WO 2003102228 A1 WO 2003-AU696 20030604; AU 2003229125 A1 AU 2003-229125 20030604; AU 2003229125 B2 AU 2003-229125 20030604; US 20060063925 A1 WO 2003-AU696 20030604; US 20060063925 A1 US 2005-517003 20050819; NZ 536909 A NZ 2003-536909 20030604; NZ 536909 A WO 2003-AU696 20030604

FDT AU 2003229125 B2 Previous Publ AU 2003229125 A; AU 2003229125 A1 Based on WO 2003102228 A; AU 2003229125 B2 Based on WO 2003102228 A; NZ 536909 A Based on WO 2003102228 A

PRAI AU 2002-2764 20020604

AN 2004-043131 [04] WPIDS

AB WO 2003102228 A1 UPAB: 20050906

NOVELTY - A universal nucleic acid anchoring system (I) comprising a solid support having a chemical moiety capable of covalent bond formation with second chemical moiety (CM), double-stranded oligonucleotide having tag oligonucleotide (T) having (CM), where (T) has 3' overhang sequence, and a bridging oligonucleotide complementary to the 3' overhang and has sequence complementary to target nucleic acid, is new.

DETAILED DESCRIPTION - A universal nucleic acid anchoring system (I) comprising the structure, S(-T)p, where S is a solid support having a chemical moiety capable of covalent bond formation with a second chemical moiety, T is a partially double-stranded oligonucleotide comprising a single-stranded tag oligonucleotide having the second chemical moiety linked by a spacer molecule to its 5' end, the spacer comprising a carbon atoms having the structure mc+n from 1-100, where m is the number of repeats of size c and n is the number of atoms not included in the repeats, the tag oligonucleotide further comprises a complementary oligonucleotide (alpha-tag) annealed to the tag oligonucleotide to provide a 3' overhang or sticky end, single-stranded nucleotide sequence, on the tag oligonucleotide, the T further comprises a bridging oligonucleotide having a nucleotide sequence complementary to the 3' overhang nucleotide sequence on the tag oligonucleotide and a further nucleotide sequence complementary to a nucleotide sequence on the 5' end of a target nucleic acid molecule, where T may be represented p times on the solid support where p is 1-100000

INDEPENDENT CLAIMS are also included for the following:

(1) a solid phase (II) comprising a surface first chemical moiety capable of participating in covalent bond formation with a second chemical moiety conjugated to a tag oligonucleotide, where the tag oligonucleotide is a substrate for ligase-mediated covalent bonding to a target nucleic acid molecule;

(2) a substrate (III) for anchoring a target nucleic acid molecule, comprises a solid phase having a first chemical moiety on its surface, a tag oligonucleotide comprising a second chemical moiety in covalent bond formation with the first chemical moiety, the second chemical moiety conjugated to the tag oligonucleotide by a molecule of structure mc+n from about 1-100, where m is the number of repeats of size c and n is the number of atoms not included in the repeats, an optionally labeled oligonucleotide complementary to the tag oligonucleotide resulting in a 3'single-stranded overhang of the tag oligonucleotide and a bridge oligonucleotide complementary based to the 3' overhang region of the tag oligonucleotide and having complementary bases to the 5' end portion of the target nucleic acid molecule where the target nucleic acid molecule is anchored to the tag oligonucleotide by ligase-mediated conjugation; and

(3) immobilizing a target nucleic acid molecule to a partially double-stranded tag oligonucleotide anchored to a solid support, comprising ligating a phosphorylated 5' end of the target nucleic acid molecule to a complementary single stranded portion of the tag oligonucleotide under conditions to permit ligase-mediated covalent bond formation where the tag oligonucleotide is covalently anchored to the solid support by covalent bond formation between a first chemical moiety on the surface of the solid support and a chemical moiety conjugated to the tag oligonucleotide by a molecule of

structure mc+n from about 1-100, where m is the number of repeat of size c and n is the number of atoms not included in the repeats where the tag oligonucleotide is rendered partially double-stranded by annealing a complementary oligonucleotide to the tag oligonucleotide leaving a single-stranded 3' terminal portion of the tag oligonucleotide which is used to capture the target nucleic acid molecule by a bridging oligonucleotide.

USE - (I) is useful in deconvolution of complex mixtures of nucleic acid molecules, sorting of nucleic acid molecules and for generation of microarrays, suspension arrays and optical fiber arrays. (I) is useful in in vitro transcription and/or translation and the transcription and/or translation products assayed or used to screen for ligand or binding partners. (I) may be fully or partially automated and is used for high throughput screening of target nucleic acid molecule.

DESCRIPTION OF DRAWINGS - The drawing shows ligase -mediated customization phosphorylated target DNA and bridge DNA is mixed with tagged microspheres, T4 DNA ligase and ATP.

L5 ANSWER 20 OF 22 USPATFULL on STN
AN 2003:294251 USPATFULL
TI Method of making protein arrays
IN Church, George M., Brookline, MA, UNITED STATES
PI US 20030207265 A1 20031106
AI US 2001-767764 A1 20010123 (9)
RLI Continuation-in-part of Ser. No. US 2000-522732, filed on 10 Mar 2000, GRANTED, Pat. No. US 6511803 Continuation-in-part of Ser. No. US 1999-267496, filed on 12 Mar 1999, GRANTED, Pat. No. US 6485944 Continuation-in-part of Ser. No. US 1998-143014, filed on 28 Aug 1998, GRANTED, Pat. No. US 6432360
PRAI US 1998-76570P 19980302 (60)
US 1997-61511P 19971010 (60)
DT Utility
FS APPLICATION
LREP John P. Iwanicki, BANNER & WITCOFF, LTD., 28th Floor, 28 State Street, Boston, MA, 02109
CLMN Number of Claims: 8
ECL Exemplary Claim: 1
DRWN 10 Drawing Page(s)
LN.CNT 3792
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Disclosed are methods of producing immobilized arrays of proteins. Included are methods for producing high density arrays of nucleic acids, amplifying arrays, and replicating such arrays. The nucleic acid molecules present on the support, whether amplified or not, are then expressed to produce proteins which are immobilized to the nucleic acid upon production or can be can be immobilized directly to the support. Alternatively, proteins can be bound to the nucleic acid molecules to produce protein arrays of the present invention. Arrays produced by the disclosed methods may include both nucleic acids and proteins or the nucleic acids can be removed from the array leaving the proteins. The disclosed methods also include replication of protein arrays in which a subset of the proteins that are produced can be transferred to an additional support where they are then immobilized.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 21 OF 22 USPATFULL on STN
AN 2003:146205 USPATFULL
TI Molecular detection systems utilizing reiterative oligonucleotide synthesis
IN Hanna, Michelle M., Phoenix, AZ, UNITED STATES

PI US 20030099950 A1 20030529
US 7045319 B2 20060516
AI US 2001-984664 A1 20011030 (9)
DT Utility
FS APPLICATION
LREP STERNE, KESSLER, GOLDSTEIN & FOX PLLC, 1100 NEW YORK AVENUE, N.W., SUITE 600, WASHINGTON, DC, 20005-3934
CLMN Number of Claims: 135
ECL Exemplary Claim: 1
DRWN 33 Drawing Page(s)
LN.CNT 4239
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The present invention provides methods for detecting the presence of a target molecule by generating multiple detectable oligonucleotides through reiterative enzymatic oligonucleotide synthesis events on a defined polynucleotide sequence. The methods generally comprise using a nucleoside, a mononucleotide, an oligonucleotide, or a polynucleotide, or analog thereof, to initiate synthesis of an oligonucleotide product that is substantially complementary to a target site on the defined polynucleotide sequence; optionally using nucleotides or nucleotide analogs as oligonucleotide chain elongators; using a chain terminator to terminate the polymerization reaction; and detecting multiple oligonucleotide products that have been synthesized by the polymerase. In one aspect, the invention provides a method for detecting a target protein, DNA or RNA by generating multiple detectable RNA oligoribonucleotides by abortive transcription.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 22 OF 22 USPATFULL on STN
AN 2002:32502 USPATFULL
TI Method of treating fabrics
IN Howell, Steven, Sharnbrook, UNITED KINGDOM
Little, Julie, Sharnbrook, UNITED KINGDOM
Van Der Logt, Cornelis Paul, Vlaardingen, NETHERLANDS
Parry, Neil James, Sharnbrook, UNITED KINGDOM
PI US 20020019324 A1 20020214
US 6579842 B2 20030617
AI US 2000-742693 A1 20001220 (9)
PRAI EP 1999-310431 19991222
DT Utility
FS APPLICATION
LREP UNILEVER, PATENT DEPARTMENT, 45 RIVER ROAD, EDGEWATER, NJ, 07020
CLMN Number of Claims: 24
ECL Exemplary Claim: 1
DRWN 12 Drawing Page(s)
LN.CNT 2105
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB There is provided a method of delivering a benefit agent to fabric for exerting a pre-determined activity, wherein the fabric is pre-treated with a multi-specific binding molecule which has a high binding affinity to said fabric through one specificity and is capable of binding to said benefit agent through another specificity, followed by contacting said pre-treated fabric with said benefit agent, to enhance said pre-determined activity to said fabric. Preferably, the binding molecule is an antibody or fragment thereof, or a fusion protein comprising a cellulose binding domain and a domain having a high binding affinity to another ligand which is directed to said benefit agent. The method is useful for example for stain removal, perfume delivery, and treating collars and cuffs for wear.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.